

POWER SECTION

Model No: AT475456.3

Revised: 9/22/2020

Rotor Specifications	
	inches
Overall Length	188.00
Contour Length	182.00
Major Diameter	2.912
Eccentricity	0.246
Head diameter	2.750
Thread Form	2.375 HEF Modified
Weight	256 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	207.00
Tube OD	4.75
Tube ID	3.75
Rubber Cutback Top/End	8.00 / 8.00
Weight	442 lbs
Number of Stages	6.3
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPW & NBR-HPO

NBR-HPW (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	2.420	0.000	0.012	0.024	0.042	0.054
.5 OS	2.429	-0.009	0.003	0.015	0.033	0.045
1.0 OS	2.438	-0.018	-0.006	0.006	0.023	0.035
1.5 OS	2.447	-0.027	-0.015	-0.004	0.014	0.026
2.0 OS						
2.5 OS						

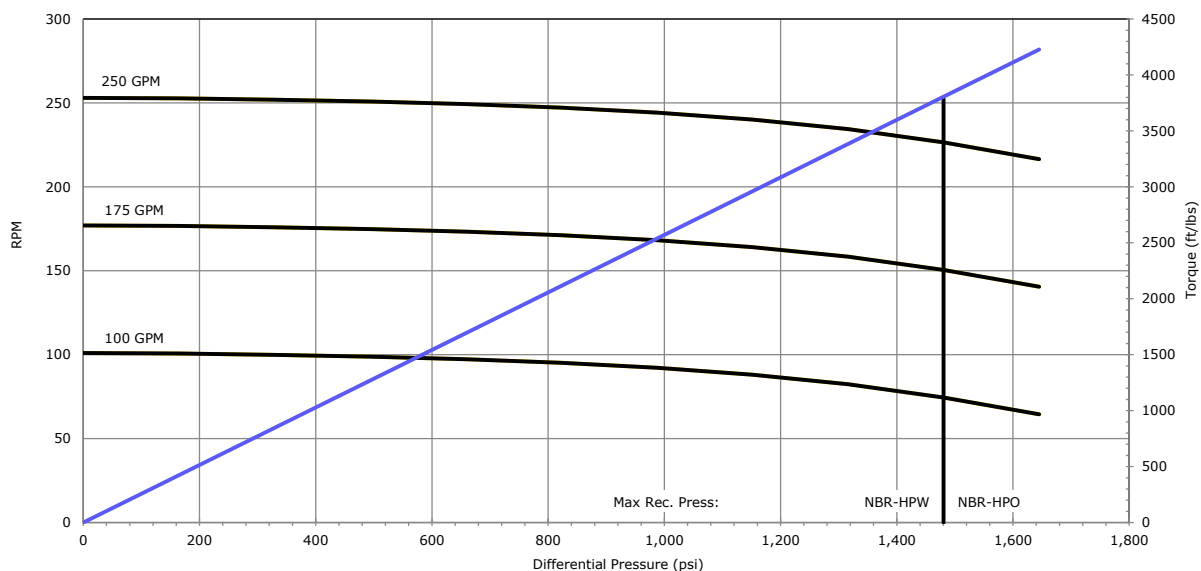
NBR-HPO (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	2.420	0.000	0.012	0.024	0.042	0.054
.5 OS	2.429	-0.009	0.003	0.015	0.033	0.045
1.0 OS	2.438	-0.018	-0.006	0.006	0.023	0.035
1.5 OS	2.447	-0.027	-0.015	-0.004	0.014	0.026
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (gpm)	100 - 250
Speed Range (rpm)	100 - 250
Torque Slope (ft-lb/psi)	2.57
Rotation (rev/gal)	1.010
Off Bottom Pressure (psi)	80

Performance Details		NBR-HPW	NBR-HPO
Max Diff Press (psi)		1490	1490
Stall Diff Press (psi)		2340	2340
Max Torque (ft-lb)		3810	3810
Stall Torque (ft-lb)		6000	6000

■ (NBR-HPW/HPO)

■ Torque



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 75°F ³ BHCT Exceeding 320°F will void warranty for NBR-HPW/HPO.

Performance curves are based on new rotor and stator dimensions and for reference only. Actual performance may vary depending on fit and drilling conditions. The stall torque may exceed that specified for the connected components. Operating over the recommended limits may result in damage to the power section and connected components. Please visit www.AbacoDrilling.com for the latest specification revisions.

LOCATIONS

US: Headquarters 713 Northpark Central Dr., #400 Houston, TX 77073 - Tel: (281) 869-0700 - Fax: (281) 869-0701
 US: Sales & Distribution 11308 West Interstate 20 East, Odessa, TX 79765 - Tel: (432) 248-1814
 CANADA: Stator Manufacturing 6303-39th Street Leduc, Alberta T9E 0Z3 Canada - Tel: (780) 986-8947 - Fax: (780) 986-8842
 DUBAI UAE: Stator Manufacturing Oilfields Supply Center B#57, Jebel Ali, Dubai UAE, P.O. Box 19909 - Tel: 971-4-870-8600

POWER SECTION - METRIC

Model No: AT475456.3

Revised: 9/22/2020

Rotor Specifications	
	mm
Overall Length	4775.2
Contour Length	4622.8
Major Diameter	73.96
Eccentricity	6.25
Head diameter	69.85
Thread Form	2.375 HEF Modified
Weight	116 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	5257.8
Tube OD	120.7
Tube ID	95.3
Rubber Cutback Top/End	203.0 / 203.0
Weight	200 kg
Number of Stages	6.3
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	NBR-HPW & NBR-HPO

NBR-HPW (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	61.47	0.00	0.55	0.82	1.09	1.37
.5 OS	61.70	-0.23	0.31	0.59	0.86	1.13
1.0 OS	61.93	-0.46	0.08	0.35	0.62	0.89
1.5 OS	62.15	-0.69	-0.15	0.12	0.39	0.65
2.0 OS						
2.5 OS						

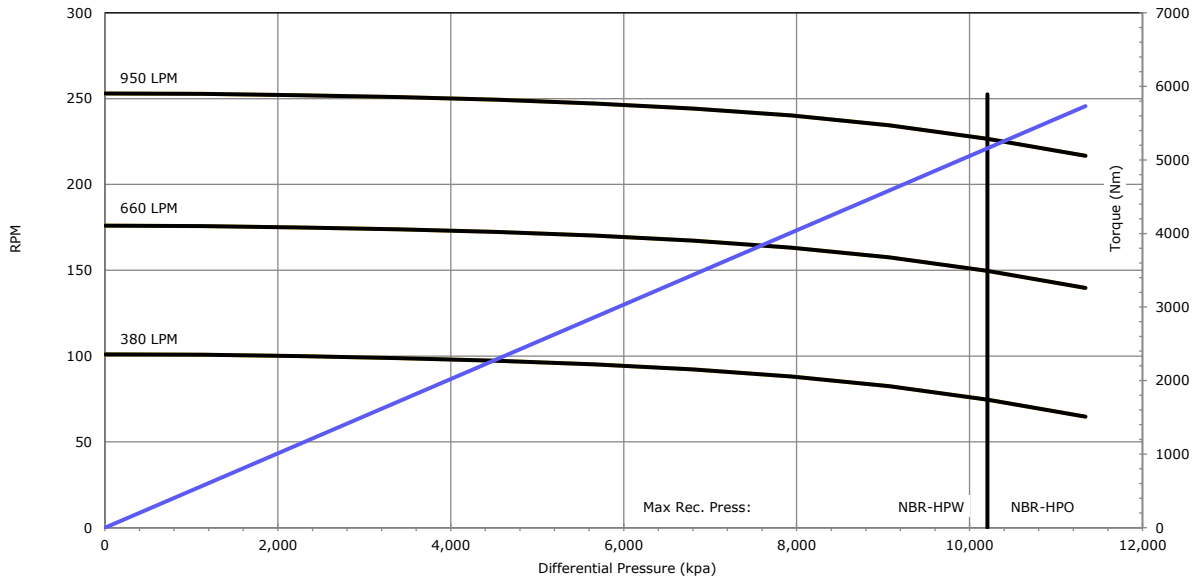
NBR-HPO (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	61.47	0.00	0.55	0.82	1.09	1.37
.5 OS	61.70	-0.23	0.31	0.59	0.86	1.13
1.0 OS	61.93	-0.46	0.08	0.35	0.62	0.89
1.5 OS	62.15	-0.69	-0.15	0.12	0.39	0.65
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (lpm)	380 - 950
Speed Range (rpm)	100 - 250
Torque Slope (Nm/kpa)	0.51
Rotation (rev/Liter)	0.2668
Off Bottom Pressure (kpa)	550

Performance Details		
	NBR-HPW	NBR-HPO
Max Diff Press (kpa)	10300	10300
Stall Diff Press (kpa)	16100	16100
Max Torque (Nm)	5200	5200
Stall Torque (Nm)	8200	8200

■ (NBR-HPW/HPO)

■ Torque



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 25°C ³ BHCT Exceeding 160°C will void warranty for NBR-HPW/HPO.

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